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ABSTRACT

Since two thirds of the country's children reside in the countryside, improving child development services in rural areas is one of China's most pressing concerns. This report details the current situation of children in rural and urban China and identifies problems related to child development. The report also presents evidence of the effect of investment in interventions targeted to the early years, assesses the socioeconomic development of such investment, and outlines a program of interventions in both health and education to improve the outcomes for children in rural China. The proposed program calls for an information campaign to educate rural parents about infant care and development, preparation of children for school, and adequate and appropriate nutrition for young children. Interventions in the early years of life (ages 0-6) have the best chance of permanently enhancing children's cognitive skills, personality, and social attitudes and behavior. Early childhood education programs attack a root cause of poverty by helping to provide poor rural children (especially girls) with a fair start. (Contains 28 references.) (HTH)

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INTEGRATED CHILD DEVELOPMENT IN RURAL CHINA

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DEVELOPMENT IN RURAL CHINA

Abstract

In the past two decades China has instituted economic and social reforms that have resulted in impressive strides in virtually every area of human endeavor. Yet despite these achievements, China's rural children continue to lag far behind their urban counterparts in physical, cognitive, and social development.

Since two-thirds of the country's children reside in the countryside, improving child development services in rural areas is one of China's most pressing concerns. Educational research has shown that intervention in the preschool years, particularly before age five, has the greatest impact on an individual's future(and for the health of society as a whole.

This study evaluates the current situation of children in rural and urban China, identifies problems related to child development, presents evidence of the effect of investment in interventions targeted to the early years, assesses the socioeconomic development of such investment, and outlines a program of interventions in both health and education to improve the outcome for children in rural China.

INTEGRATED CHILD

DEVELOPMENT IN RURAL CHINA

Interventions in the early years of life have the best chance of permanently enhancing children's cognitive skills, personality, and social attitudes and behavior. By helping to provide poor rural children (especially girls) with a fair start, therefore, early childhood education programs attack a root cause of poverty.

Research has shown that early education has a lasting effect. It helps to reduce social costs and leads to higher economic returns. It promotes social equality. It increases the efficacy of nutrition and health programs and other investments designed to improve children's chances for survival (Young 1996).

The proposed investment in early childhood services for rural children aged 0–6 has the potential to greatly improve the quality of life in China as a whole. This document contains information regarding the current state of preschoolers and preschool education in China and outlines a program of interventions designed to improve the quality of that education in rural counties. It is divided into chapters on 1. Background, 2. Parenting and Child Development, 3. Preschool Education in China, 4. Solutions, and 5. Conclusions.

1. Background

Even after many decades of controlled population growth, China still contains a one out of every five preschool-aged children in the world. According to the 1990 Chinese National Census, children under six then numbered 155.5 million, or 13.8 percent of the country's 1.2 billion citizens. (*Almanac of China's Population* 1993)

China's policymakers have long recognized that young children are the country's future. The *National Program of Action for Child Development in the* 1990s (China Women's Federation, 1993) states clearly that ensuring young children's survival, protection, development, and education is the most direct route to human progress and a decent quality of life. For this reason China has made a concerted effort to provide services to children(despite its limited budget and vast numbers of people to be served. China has accordingly made considerable gains:

In health

- Infant mortality rates in China are among the lowest in the developing world, having declined from 139 per thousand in 1954 to 30 per thousand in 1990 (Ren 1996).

- Immunization coverage for children reached 85 percent in 1990

- Malnutrition for children under five is currently 21 percent (People's Daily, Overseas Edition, June 1, 1991).

In education

- Between 1949 and 1995 enrollment rates for preschool-aged children went from 20 to 98.8 percent nationwide (People's Daily, Overseas Edition, October 27, 1997), with the result that in 1995, 26.3 million children aged three to six were enrolled in preschool.

- Roughly 80 percent of Chinese counties have universal primary education (People's Daily, Overseas Edition, May 30, 1994).

- One-year preschool classes now serve 60 percent of the nation's five- and six-year-olds and are being expanded into rural areas (People's Daily, Overseas Edition, June 1, 1991).

Yet much more remains to be done. The medical, social, and educational services available to rural children, for instance(who account for two-thirds of the under six cohort) still lag considerably behind those available in the city. Where city children regularly start kindergarten at age three, for instance, at least half of all rural children have no access to appropriate child care or educational preparation before entering primary school. Rural parents are also far less likely than their urban counterparts to understand how children grow and learn, and therefore to appreciate the importance of early education to very young children's development.

While first grade enrollments in China today stand at 98 percent of the national cohort and at 95 percent for rural areas (Shanghai Development Group for Intelligence 1996), moreover, the picture becomes more complex later in children's school career. A 1994 national retention rate for children in the fifth grade of 81.08 percent, for instance, fails to convey the wide gap in student enrollments separating city from country and affluent from poor.

Area	Percentage of fifth graders still in school
3 municipalities	>95
5 provinces/areas	90–95
10 provinces/areas	80–90
5 provinces/areas	70–80
7 provinces/areas	<70
4 provinces/areas	<50

Children repeating grades is another serious problem for primary students in rural areas. For in these areas, repetition rates run as high as 20–30 percent(particularly for the first grade (Wei and Su 1992).

As a group, rural students tend to have trouble adhering to school rules. They are unobservant, do poorly in class, and have little sense of accomplishment. They also tend not to take part in school social activities. Their social skills are also underdeveloped. They are rarely able to express themselves well or to convey ideas or wishes, and their personal hygiene is frequently bad (Li 1995).

In addition to creating a two-tiered society divided between educated city dwellers and uneducated rural populations, Chinese education policies and practice have also put girls at a considerable social and economic disadvantage. In 1994 China had 180 million illiterates over 70 percent of whom were female. Girls also account for more than 70 percent of the 1 million children who drop out of primary school every year, and for most of the 1 million children who never enter school at all (Shi 1995).

These statistics reflect the widespread tradition in rural China that girls belong at home and therefore do not need education. Yet research has shown that when girls participate in early development programs, they are far more likely to enroll in primary school and to enter better prepared. This then leads to girls' increasing success in school, which often convinces parents to change their ideas enough to allow their girl children to continue on in school (Young 1996).

Economic analyses consistently show that educating girls produces long-term social and economic benefits. Educated girls enter the labor market with greater self-confidence and ambition and are consequently more productive (girls' primary enrollments have a strong positive correlation with per capita GNP). Benefits derived from female education, moreover, frequently last through many generations. For educated women are more likely to plan their families (women's schooling has been shown to reduce fertility rates by 5–10 percent) and to raise healthy, educated, and productive children.

Studies have shown, moreover, that stimulation in the early years plus proper preparation for entry into primary school can put disadvantaged children on a more equal footing. Preschool interventions can help to solve the problem of primary school dropouts, grade repetitions, gender inequity, and relapse into illiteracy.

Since very young children (even those enrolled in preschool programs) spend most of their time at home, moreover, parents' knowledge about and approach to child-rearing is still the most important single factor affecting a child's early development. With parents who do not understand the value of stimulating their children or encouraging them to explore and learn from their surroundings, rural children begin school already far behind their city counterparts children in physical, cognitive, and social growth. Persisting from grade to grade and from school to work, this initial handicap continues throughout life. Not surprisingly, therefore, rural children do worse in school and are more likely to drop out than urban children. As they grow older, they are also likely to be less productive and even to become burdens on public health and social service budgets.

2. Parenting and Child Development

Since what happens in the earliest years will help to determine each person's future level of achievement in school and life, parents' child-rearing practices are the single most important influence affecting preschool-aged children's development. Parents' cultural mores, level of education, social values, ideas about child-rearing, knowledge of nutrition, and access to food,

income, and security largely determine how well a child's basic physical and intellectual needs will be met.

In China where children's achievement redounds to the family's social credit and brings honor to the ancestors, child-rearing is a fundamental social issue. Especially in rural areas boys, who have higher status and carry on the family heritage, are strongly preferred over girls. Boys are therefore offered more opportunities for education but must also meet higher expectations for achievement.

Chinese parents prize obedience, filial piety, and mutual dependence between parents and children. Early leniency is generally favored over harshness. Parents who are easy, even indulgent, with preschoolers, however, frequently impose strict discipline on older children. Once a child reaches school age, it is thought to pass into a different period of life. Increased understanding brings with it increased responsibility for the child's own achievement and actions.

City attitudes, country attitudes

Chinese society traditionally considers children under the age of six to be in a state of "not understanding." Most parents therefore consider it useless to try to shape young children's behavior or instill ideas and moral direction in the preschool years. According to the traditional view, children only develop the ability to reason after age six, at which time they are sent off to primary school (Stevenson, Chen, and Lee 1992).

While this traditional view has largely been replaced in urban China, where parents are now almost universally convinced that early stimulation and education is beneficial and necessary for their children's healthy development, in the countryside the old view still holds. Rural parents — largely unaware of how much early intervention can enhance children's intelligence and social skills — concentrate their efforts on providing clothing and food.

One study found that 60 percent of rural parents think that children's physical well-being depends on getting three meals a day (Chen 1994). Yet even in providing the basics, few rural parents have a grasp of nutrition and healthy behaviors sufficient to ensure their children's physical well-being. The majority do little to ensure that children have proper nutrition, physical exercise, and a secure routine. Even when incomes rise, moreover, rural parents rarely buy children's books, toys, and other educational aids. Of the 600 families with children aged 4 to 12 surveyed by Chen in 1994, 37 percent had no children's books and 27 percent owned fewer than 10 books of any description.

Rural children also tend to enter preschool at a later age than their urban counterparts. While 70 percent of parents in Hebei and Jiangsu provinces appreciated that early education could give their children a head start, for instance, on 10 percent thought three-year-olds needed preschool education. In rural Hebei, the poorer of the two provinces, 83 percent of parents planned to send their child to kindergarten no earlier than age five or six, while 68 those in rural Jiangsu planned to send them to school at age four or five (Shen and Xiang, 1986).

By contrast city parents have become increasingly aware of the benefits derived from early childhood education — especially since the one-child policy took effect in the 1970's. Many are so convinced that they send their children to the best preschool available regardless of distance or cost. Children as young as three, supervised by parents and grandparents, are encouraged to learn how to draw, play musical instruments, or speak a second language. Enrollment has also increased in formal kindergartens, with the result that more urban children than ever are now enrolled in high-quality kindergartens, furnished with appropriate toys and teaching materials, trained teachers, and a developed curriculum.

Chinese parents' dedication to educating their children was reflected in a recent national survey, which found that 40.8 percent of city families save money for their children's education (first choice) and 27.3 percent intend to invest in their children's education (second choice) (People's Daily, overseas edition, December 29, 1997).

Physical health and development

While Chinese children from the North and Central provinces tend to grow taller than those from the South, studies consistently show that rural children everywhere lag behind their urban counterparts in physical growth.

National surveys recorded, for instance, that urban children made average gains of 3 percent in weight and 1–2 percent in height between 1975 and 1985 while rural children showed little or no improvement. These findings suggest that rural children may lag as much as 10 years behind urban children in nutritional status and physical growth (Children and Women of China 1995).

While the percentage of city children judged to be moderately underweight dropped from 12 to 6 percent between 1987 and 1991, moreover, in the same time period the group went from 24 to 19 percent — still nearly a fifth — of all rural children. Small stature caused by malnourishment is almost nonexistent in China's city's yet is not uncommon in rural areas, particularly in the provinces of Hainan, Guangxi, and Xinjiang. The problem is more prevalent, moreover, among girls than boys Table 1.

Table 1: Percentage of Underweight and Underheight Children under Four Years of Age, by Rural and Urban Areas within Province, 1991

Province	Moderate Underweight*			Severe Underheight**		
	All	Rural	Urban	All	Rural	Urban
All	17	19	6	19	22	3
Beijing	4	7	3	4	9	2
Tianjin	5	9	3	7	16	1
Hebei	11	12	4	18	20	2
Shanxi	12	14	5	15	17	4
Inner Mongolia	10	12	4	14	18	3
Liaoning	4	6	2	4	6	1
Jilin	9	12	3	12	17	2
Heilongjiang	8	11	3	9	12	4
Shanghai	5	7	3	4	8	2
Jiangsu	10	11	2	14	17	1
Zhejiang	8	9	5	7	9	1
Anhui	15	16	5	17	19	1
Fujian	26	28	7	25	27	4
Jiangxi	26	28	9	28	31	6
Shandong	9	10	2	13	16	2
Henan	12	13	5	17	19	3
Hubei	14	15	8	19	23	5
Hunan	20	22	7	19	22	4
Guangdong	26	31	12	20	25	6
Guangxi	35	37	12	30	32	3
Hainan	38	42	14	32	37	2
Sichuan	20	22	7	26	30	4
Guizhou	26	28	8	35	38	4
Yunnan	26	27	14	26	27	8
Saanxi	15	17	5	17	19	3
Gansu	17	19	4	17	19	2
Qinghai	20	22	5	23	25	5
Ningxia	12	13	5	9	10	3
Xinjiang	28	33	9	31	37	7

Source: Preliminary data from the 1992 Sample Survey of the Situation of Children in China.

* Two standard deviations below the median weight of the referent population.

** Three standard deviations below the median weight of the referent population.

Children in rural China also tend to be less healthy than urban children and less likely to have the complete array of early childhood vaccinations. (Table 2).

Rural children also tend to suffer more from the lack of vital micronutrients(such as iron, iodine, vitamin A, and calcium (Children and Women in China 1995). It is estimated that rickets, a vitamin D deficiency in children brought about by feeding patterns and lack of exposure to sunlight in the first few months of life, affects a fifth of China's rural preschoolers (nearly half of all rural children in North China, a third of children in Central China, and a quarter of children in South China). Yet the occurrence of rickets is only 2 percent in the urban south.

Intellectual development

Early experience affects children's intellectual development. Recent research has now shown, in fact, that early experiences influence the formation of new neural pathways and connections in the brain, enhancing the physical capacity for mental activity throughout life.

In October 1997, speaking on child care at the University of Maryland in College Park, America's first lady Hillary Rodham Clinton summed up these recent findings:

> "Children's earliest experiences, the sights and sounds and smells and feelings they encounter, the challenges they meet, determine how their brains are wired. When someone speaks, reads, or plays with an infant or toddler, he or she is activating the connections in that child's brain that will one day enable him or her to think and read and speak and solve problems by him- or herself."

Table 2: Percentage of Children Vaccinated in 1991, Data from 1992 National Sample Survey of the Situation of Children

	Under 1 Year			Under 2 Years		
Vaccines	All	Rural	Urban	All	Rural	Urban
BCG	83	81	95	87	85	96
DPT3	64	59	87	85	83	96
Polio	67	63	88	89	87	96
Measles	68	65	86	81	79	93

Emotional and social development

Sensitive care-giving, individual attention, and responsive interaction with infants also has emotional social consequences. For in addition to having more difficulty learning and mastering language, children who are emotionally neglected or abandoned early in life are also more like to have trouble experiencing empathy, attachment, and emotional expression in general (Newberger 1997). According to a major national study, Psychological Development and Education of Chinese Children and Adolescents (Zhu 1990), urban children are also intellectually more advanced than their rural counterparts.

Another study conducted in 1989 by WHO and the Shanghai Institute for Pediatric Research, found that rural preschoolers lagged behind their urban peers in the development of gross motor skills, fine motor skills, vision and perception, hearing and language, and cognitive understanding. Using a 70-item questionnaire derived from the WHO protocol, the DDST, the Vineland Assessment of Social Competence (Guo 1991), and the California Fifty-Item School Readiness Test, the WHO-Shanghai study found that the gap between country and city children was particularly wide for abilities that require practice and learning. Specifically, rural children

between the ages of 5 and 9.5 months were slow to develop vision and fine motor skills (Table 3), and those between 8 and 12.5 months showed a delayed grasp of language, hearing, and understanding concepts (Table 4).

Table 3: Vision/Fine Motor (Urban vs Rural Areas)

Abilities	Age of Attainment in Months (50% Tile)		
	Urban	Rural	Difference
Draw vertical line	32.7	38.5	5.8
Draw horizontal line	34.2	40.4	6.2
Copy square	58.7	68.2	9.5
Copy circle	37.1	42.4	5.3

Table 4: Hearing/Language/Concepts (Urban vs Rural Areas)

Abilities	Age of Attainment in Months (50% Tile)		
	Urban	Rural	Difference
Know 3 colors	38.1	48.6	10.5
Concept of 2 & 3	39.5	47.6	8.1
Use opposite analogues	43.3	53.5	10.2
Count objects 1 to 10	44.0	56.5	12.5
Write 2,3,5,9,6	61.8	73.9	12.1

Of the 3,320 urban and rural children aged four to six-and-a-half tested in 1988 using the Wechsler Younger Children Scale of Intelligence used in China, urban children in every age group(and by every measure of intelligence — scored significantly higher than their rural peers — Gong and Dai 1988). Given their more highly developed skills in learning, language, logical and flexible thinking, and the understanding of concepts, urban students also earned better grades than rural students once they entered school (Poston and Falbo 1990, Zhu 1990).

Early childhood development has been shown to help prevent the stunting of rural children's physical and intellectual development, which otherwise puts them at a lasting disadvantage from the beginning of their lives. If China is not to have a two-tiered citizenry, therefore, it must improve the child development and education services available to preschoolers throughout country.

Parenting extremes — China's "sandbag" children

One traditional method of rearing young children, commonly practiced in parts of Shandong and Hubei provinces, is known as "sandbag rearing." After a baby is born, it is laid in a bag of fine sand. The sand acts as a diaper and is changed once a day. Once placed in the bag, the baby is left alone, face up, and is visited only when being fed by the mother. To reduce stimulation, adults are not allowed to hold, play with, or train the child in any way. After a period of time the child becomes calm and quiet, ceasing to cry or express emotions.

Sandbag-reared babies are considered to be "good" babies, easy to deal with and raise. They are generally left in the bag for one to two years, and only after that are taught to walk. But while this child-rearing method cuts down considerably on the wear and tear on the parents, it provides the worst possible environment for the child's physical, mental, and emotional development.

Studying the phenomenon, researchers compared a group of randomly selected children aged seven to sixteen years old deprived of stimulation for over a year with a similar group raised more normally (Wu 1990). The average IQ of sandbag-reared children was significantly lower than that children in the control group (Table 5), and the longer the sandbag experience, the lower the IQ (Table 6).

Table 5: IQ Scores Between Two Child Rearing Practices

	Case	Mean	Standard Deviation
Children with no stimulation	69	68.58	13.75
Children with stimulation	69	87.45	13.19

*p<.001

Table 6 : IQ Scores Between Two Groups of Children

	Case	Mean	Standard Deviation
Children in sandbags over 24 months	7	52.43	13.67
Children in sandbags between 12 to 18 months	62	70.40	12.61

*p<.001

Wu also found that parents using the sandbag method were likely to have little or no education and to be more conservative about preserving traditional ways. Given these parents' limited education, it was unlikely that they knew anything at all about how young children develop or the impact of early stimulation and education. Most expressed the belief that children grow and learn by themselves.

Since sandbag child-rearing occurs in areas where water and economic resources are scarce, it is a practice that is likely to continue. It is therefore critical to educate parents — especially in poor areas — on the best way to provide a healthy and stimulating environment for their young children.

3. Preschool Education in China

All Chinese children aged three to six are eligible for a three-year kindergarten program, and in some areas five-year-olds may also attend a one-year preschool class attached to the primary school. The Chinese kindergarten curriculum uses cooperative activities and decisionmaking to convey a political message. Children are taught language skills, arithmetic, singing, dancing, and drawing. Nearly half of the 930,000 teachers and administrators currently employed in China's preschool system, moreover, have a middle-school degree in preschool education (People's Republic of China Yearbook 1995).

Yet China still has only 41 percent of the eligible three-to-six cohort enrolled. With China currently working to increase preschool attendance, however, it is projected that urban kindergarten enrollments will reach 70 percent of eligible-age children in the 1990s and rural enrollments in the one-year program will reach 60 percent.

Although the State Education Commission is officially responsible for preschool education in China, however, most preschools are actually established and maintained by local communities (which run the majority of preschool classes and kindergartens), business enterprises, or government administrators. Roughly 58 percent of all children receiving preschool education today are enrolled in community-based preschools, and 56 percent of preschool teachers are employed by the community (Children and Women in China 1995).

Preschools in China also differ considerably between city and country in the quality of the education they provide. While demand for preschool education in cities is high, for instance, most rural parents are still unaware of its importance. In rural communities, therefore, preschool rarely makes it to the level of a priority concern — with the result that teachers are less well-trained, the curriculum is poorly developed, and facilities are inadequate and poorly maintained. Rural preschools also tend to suffer from a lack of expertise in educational management, poor motivation on the part of teachers, limited transportation resources, and inadequate teaching materials and supplies.

A recent study of preschools in and around Shanghai, the biggest city in China, found that 95 percent of urban and 73.1 percent of rural children aged three to six were enrolled in kindergarten. Yet of the 2,286 kindergartens operating in peri-urban areas of the municipality, only 14.8 percent met minimum standards and only 32.9 percent of kindergarten teachers were qualified for their jobs. In addition, more than half of suburban preschool teachers did not like their jobs and wanted to leave (Shanghai Health Bureau 1993, as quoted in Weng 1996).

Another survey conducted in 75 villages in 23 counties in the Jiangsu and Hebei provinces, found that 82 percent of kindergarten teachers in Jiangsu and 96 percent in Hebei had little or no training in early childhood education. Training available to preschool teachers, moreover, consists of a one- or two-month crash course in teaching singing and dancing (Shen and Xiang 1986).

Real as these problems are, however, preschools in remote villages and minority population districts face conditions far worse. Many rural areas have no kindergartens at all or offer programs that are essentially babysitting facilities. Funding is in short supply. Preschools operate without a curriculum and in poor (and sometimes unsafe) facilities. Sixty-five percent of kindergarten teachers in Hebei province and 27 percent in Jiangsu reported having no access to teaching materials such as toys, books, and pictures. And as a group rural kindergarten teachers are ill-trained, ill-paid, ill-motivated and not respected.

4. Solutions

> *Given the right opportunities and the right learning environment, children will develop in similar ways whatever their background. . . . As long as we keep in mind that everything we do is concerned with the development of the whole child, we are doing the same sorts of things for the same sorts of reasons.*
>
> —Dr. Stephen Ngaruiya

In China today, two-thirds of the country's preschool-aged children live in underdeveloped rural areas where health care facilities are inadequate, child care facilities either do not exist or do not meet minimum standards, and — most importantly — parents' knowledge of child development and early education is limited. In physical, intellectual, and social development, rural children lag measurably behind their urban peers.

During the past decade the World Bank has worked with a number of different countries to develop integrated and culturally specific early childhood intervention programs. The following program is derived from the experience of these countries — particularly Colombia, Mexico, and India — and adapted to suit the Chinese context. India, especially forward-thinking on this front, has made its early education program a national priority, and China's policymakers are urged to take a similar stance with regard to early education for rural children in China.

In accordance with the strategy outlined in the National Program of Action for Child Development in China in the 1990s, a variety of approaches will be used to educate parents and preschool-aged children and to increase preschool enrollments in sparsely populated, mountainous, and remote areas and to nomadic populations. Services for rural children aged 0–3, a formative period largely ignored by parents, educators, and policymakers, will also be improved.

The proposed program calls for an information campaign to educate rural parents about the importance of interacting with children aged 0–6, stimulating their minds, and encouraging them to explore and learn. Broadcast radio and TV are two powerful educational tools for increasing parents awareness of ECD. Educational videos, moreover, have the ability to convey the message quickly to large numbers of people, and to do so in an engaging and easily retainable way (Young 1996).

The Philippines, Bolivia, and Nigeria have all used the mass media successfully to educate their citizens about early childhood development. Local and national broadcast television has been used in these countries to teach parents the basics of child development and care. ECD programs for the mass media show how physical and mental stimulation are as necessary to young children's health and growth as nutritious food. By the same token, programs such as Sesame Street, which uses popular children's songs and stories to convey information, have proved highly effective for educating young children. Mass media, moreover, is available throughout China.

In rural China young children are cared for exclusively by their mothers in the home for at least the first six years of their lives. Research has shown, moreover, that the most effective interventions are those that occur in the first four years of a child's life — the years when humans develop the foundation for intelligence, personality, and social behavior (Evans 1993). Educating parents is therefore the most effective means of achieving an integrated early development program for very young children.

It is also important that parents and caregivers understand that child development occurs in stages. Teaching the basic principles of child development strengthens the parents' ability to stimulate their children appropriately at different ages and stages, which divide roughly as follows:

- ***infant care and development (birth to age one).*** Focus on interaction between mother and infant, such as talking, active engagement while feeding, frequent touching, showing affection, and responding to the infant's demands. Healthy cognitive development requires active interaction with caregivers in a safe environment, with many objects that children can see, hear, smell, and taste during playtime.

- ***preparing children for school (three to six).*** Older preschool-aged children need a variety of activities to help them develop the skills they will need in school, such as simple problem-solving tasks, taking care of themselves (dressing and eating), interacting socially (with adults and peers), and developing language and cognitive skills (telling stories, becoming familiar with the spoken and written word, drawing pictures, etc.).

Parents in rural China also need to learn about:

- ***adequate and appropriate nutrition for young children.*** The traditional home-weaning diet includes rice or wheat porridge but no fat or oil — a diet shown to contain insufficient caloric intake to support rapid growth. Undernourishment during this crucial period can lead to physical and mental problems later in life, including stunted growth. It is therefore important to package nutrition information in a way easily understandable to parents and to encourage them to make more nutritious supplementary foods using ingredients available in the home.

- ***constructive interaction with young children***. Mothers will be instructed on how best to supervise and interact with their children as these children pass through different stages of development. The program will set out which conditions are optimal for development at each stage (such as physical, verbal, and emotional exploration and experimentation from ages one to three).

- ***growth monitoring***. Mothers will be instructed on how to conduct basic growth monitoring activities, such as measuring children's height and weight to determine physical development. These activities should reinforce improvements made in nutrition by showing mothers that they result in healthier outcomes for the child.

- ***stimulating environment***. To enhance children's awareness of their environment and their social, emotional and intellectual performance, parents will be encouraged to set up and use natural and safe learning settings in the home. The program will use positive reinforcement to change deleterious child-rearing practices.

- ***enhance mothers' education***. Particularly where the mother is illiterate, preschool education programs can be used to enrich parents' educational skills along with those of their children.

5. Conclusions

For thousands of years China has revered education as the surest route to political, social, economic, and cultural attainment and success. In modern times the country's nine-year compulsory education requirement — complemented by substantial vocational, adult, and higher education programs — have raised the population's cultural level and economic productivity dramatically. Socialist modernization, in fact, is based on the idea that the nation's future rests on improving the quality of its children.

Yet significant differences in family policy, population growth, social environment, and economic development have combined to create a two-tiered system when it comes to early childhood education. Ignorant of young children's changing needs, China's rural parents fail to provide the nutrition, stimulation, and interaction needed to promote healthy growth. No government or community education services are targeted to children aged 0–3, and while city children attend quality preschools from age 3 to 6, their rural peers — who make up two-thirds of the cohort — are relegated to inferior facilities or have no access to preschool education at all.

Under these conditions, China's rural children have fallen far behind their city peers in their physical, mental, and social development. They enter school already at a disadvantage, and this disadvantage continues to hamper their productivity throughout life.

China is not now — and will not be in the future — able to provide early child care facilities for all its children, particularly in poor and remote areas. If the preschool education gap between city and country to be closed, it will have to be closed by better-informed parents.

Recognizing the key role parents play in children's development, China's National Program of Action for Child Development in the 1990's states that educating 90 percent of parents with children below the age of fourteen about child care and child rearing is one of its primary goals. In the same vein India, the Philippines, Nigeria, Israel, and Mexico have instituted national training for parents and caregivers in the principles of early child development.

As China becomes increasingly developed, the economy will need more and more skilled workers. Urban communities will prosper and grow, leaving rural communities — which hold two-thirds of the population — ever further behind. Efforts to enhance early development for rural children and educate parents about the benefits and practices related to integrated child development will help to shrink this growing rift. For giving rural children an equal start will help to make them and their children more intelligent and effective people and productive citizens throughout their lives.

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